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SOFT ROT OF *EPIPREMNUM AUREUM* CAUSED BY *ERWINIA CAROTOVORA* PV. *CAROTOVORA*

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Pothos, *Epipremnum aureum* (Linden & Andre) Bunt., is an important member of the popular foliage plant family Araceae (1,2). It is a native of the Solomon Islands where it grows as a fleshy vine (1). Pothos is grown commercially in hanging baskets, pots, and some in dish gardens.

Pothos is subject to a soft rot caused by *Erwinia carotovora* pv. *carotovora* (Jones) Bergey, et al. (4). The bacterium can be found in diseased tissue obtained from stock, propagation, and finishing areas. The most severe disease losses occur during propagation, causing a rapid and severe cutting decay (3).

SYMPTOMS: The bacterium invades the leaves and petioles of potted plants and the stems, leaves, and petioles of unrooted and rooted cuttings. Infected plant tissue appears initially as a discrete water-soaked grayish green area which rapidly enlarges, becomes mushy and turns brown to black. This eventually results in complete collapse of the affected plant. Infection of unrooted cuttings usually occurs through cut ends and in the areas where aerial roots have been removed, with the decay eventually progressing into the petiole and lamina of the parent leaf. Complete collapse of the cutting may occur within 2-4 days (Fig. 1). Disease development is favored by wet, warm to hot environments. If during leaf infection the environmental conditions become excessively dry, lesions will turn a dry brownish-black, often with a yellow margin (3).

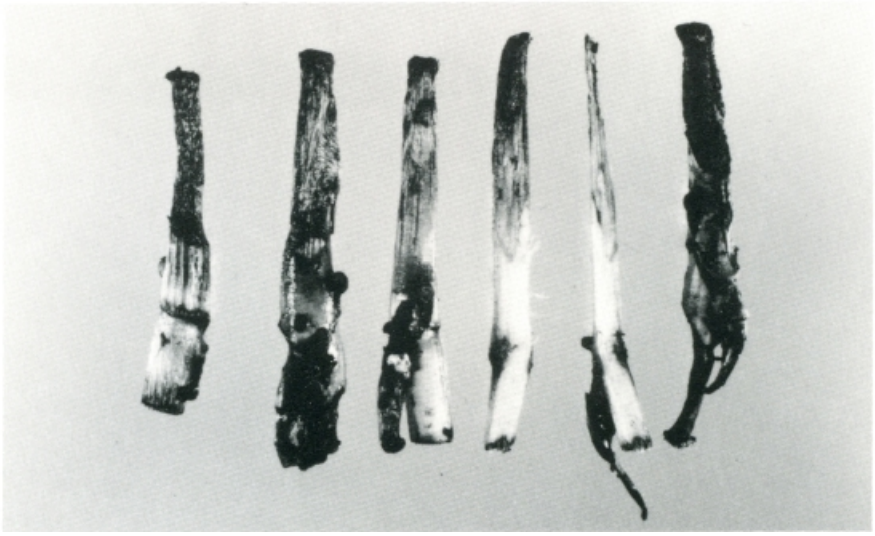

Fig. 1. *Erwinia carotovora* pv. *carotovora* on *Epipremnum aureum* cuttings, showing dark brown mushy decay.

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CONTROL: No chemicals are cleared for this disease on pothos. It is best to use cuttings from clean stock, sterile soil medium, tools, and benches, and keep the plant material as dry as possible.

SURVEY AND DETECTION: Look for rapid, soft decay of leaves, petioles and/or cuttings which is first water-soaked and then turns brownish black in color.

LITERATURE CITED

1. Graf, A. B. 1974. Exotica Third. Roehrs Co., Rutherford, NJ. p. 1713.

2. Knauss, J. F. and J. W. Miller. 1972. Description and control of the rapid decay of Scindapsus aureus incited by Erwinia carotovora. Proc. Fla. State Hort. Soc. 85:348-352.

3. Liberty Hyde Baily Hortorium Staff. 1978. Hortus Third. Macmillan Publishing Co., Inc., New York. p. 431-432.

4. Young, J. W. et. al. 1978. A proposed nomenclature and classification for plant pathogenic bacteria. N. Z. J. Agr. Res. 21:153-177.

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